

Test Administration Manual

**Delaware Science Assessment:
End of Unit Grade 5
Topical Standards
Structures and Properties of Matter**

Prepared for the Delaware Department of Education
by WestEd and Pearson



End-of-Unit (EoU) Assessment

Role of the EoU in the Next Generation Science Assessment System for Delaware Learners

Ongoing assessment of student learning is imperative for informed decision-making on the part of parents, teachers, and administrators who are tasked with providing an outstanding education for all students. To that end, the Delaware Department of Education and our Local Education Associations have worked to develop a comprehensive and balanced assessment system with three distinct parts.



Embedded Classroom Assessments have been developed by teachers to provide information on learning in real time. The assessments are primarily for instructional use and are therefore short and administered at the discretion of each teacher. The development of these has been supported by professional development.

Students will also take *End-of-Unit Assessments* shortly after the completion of each instructional unit. In each grade, the academic school year is divided into three to four units, each of which is aligned to a specific disciplinary content domain. Each End-of-Unit Assessment is meant to provide information on student learning of the NGSS content in each unit for the purposes of instruction (e.g., determining whether additional instruction on previously instructed topics is needed, or using as a classroom assessment for grading purposes) and evaluation (e.g., informing curriculum adoption, adaptation, and modification) at classroom, school, and district levels. End-of-Unit Assessments are developed by vendors working with DDOE staff and informed by educator reviews for classroom administration by teachers.

Finally, students in grade 5, grade 8, and high school biology will also take an *Integrative Transfer Assessment* (whereas the Embedded Classroom Assessments and End-of-Unit Assessments are taken by students in every grade from 3 to 10). These Integrative Transfer Assessments are meant to capture students' learning of the content instructed during the entire year. This assessment system brings full circle the alignment of curriculum, instruction, and assessment to provide a system of science education with timely feedback loops intended to offer an opportunity for shared reflection and informed decision-making. Integrative Transfer Assessments are developed by vendors working with DDOE staff and involving educator

committees. They are administered through an online system in a secure testing environment and used for state accountability purposes.

Introduction to This End-of-Unit Assessment

This in-class assessment is designed to be given at the end of the grade 5 unit topic *Structure and Properties of Matter*. This assessment is expected to take 45 minutes to administer. The assessment may be given as one complete test session, or it may be broken into two separate test SECTIONS (broken out by each individual item cluster set), as appropriate for the participating student group.

Unit Topic:	Structure and Properties of Matter
Performance Expectations	
5-PS1-1	Develop a model to describe that matter is made of particles too small to be seen.
5-PS1-2	Measure and graph quantities to provide evidence that regardless of the type of change that occurs when heating, cooling, or mixing substances, the total weight of matter is conserved.
5-PS1-3	Make observations and measurements to identify materials based on their properties.
5-PS1-4	Conduct an investigation to determine whether the mixing of two or more substances results in new substances.
3-5-ETS1-3	Plan and carry out fair tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved.

NOTE: All questions are aligned to dimensions specific to designated PEs. Some questions are aligned to additional dimensions not specific to the designated PE.

Total Testing Time: 45 minutes

Materials

1. Student Booklet*
2. Teacher Guide (this document)
3. Student Answer Document (optional)*
4. Anchor Papers (optional)*

No additional materials are needed for this test.

Directions for Administration

End-of-Unit Assessments are not administered for secure accountability purposes. This assessment is intended to support the classroom teachers' instruction. Teachers should administer this test under the same conditions provided for any other classroom quiz or test. The assessment may be given as one complete test session, or it may be broken into two separate test SECTIONS (broken out by each individual item cluster set), as appropriate for the participating student group.

Teachers may read aloud any or all portions of the assessment to students. Without giving away a more appropriate response, please help students understand the intent of the question or task. This is not a test of reading, writing, or artistic ability.

Each student will need one copy of the Student Booklet. Students may respond directly in each booklet or respond in the optional Student Answer Document.

NOTE: Student Booklets for grade 5 are generally 7 pages or more when printed front to back. For this reason, IT IS HIGHLY RECOMMENDED that teachers/schools print one complete class set of Student Booklets for repeated use from class to class, instead of one booklet per student. An alternative option for schools in a 1-to-1 digital device setting may be to offer students a digital version of the Student Booklet, on a tablet or laptop computer, to read questions while providing responses on paper copies of the Student Answer Documents corresponding with their Student Booklet. However, it is important for teachers to recognize student individuality and provide printed copies for students who may need accommodations. Teacher guides may be printed or used from a digital device/tablet format as desired.

Scoring

The answers to each question are provided in the provided rubric*. More detailed answer rationales and actual scored student responses are included in separate Anchor Papers.

Alignment information for each question is provided in a table directly above the answer(s). The alignment information is provided for an entire question; alignments to individual parts of a question are not provided.

Questions that have two parts or that are worth more than one point have a scoring rubric that is used to determine the student's score. The rubric included with each question will indicate how to determine the final score for that question.

**Student booklets, rubrics, student answer documents, and anchor papers are provided separately for teachers in a secure browser.*

Key to Abbreviations

PE: Performance Expectation

SEP: Science and Engineering Practice

DCI: Disciplinary Core Idea

CCC: Crosscutting Concept

Science and Engineering Practice Abbreviations

AQ	Asking Questions and Defining Problems
MOD	Developing and Using Models
INV	Planning and Carrying Out Investigations
DATA	Analyzing and Interpreting Data
MCT	Using Mathematics and Computational Thinking
E/S	Constructing Explanations and Designing Solutions
ARG	Engaging in Argument from Evidence
INFO	Obtaining, Evaluating, and Communicating Information

Crosscutting Concepts Abbreviations

PAT	Patterns
C/E	Cause and Effect
SPQ	Scale, Proportion, and Quantity
SYS	Systems and System Models
E/M	Energy and Matter
S/F	Structure and Function
S/C	Stability and Change